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[6450-01-P]

**DEPARTMENT OF ENERGY**

**[Case Number 2019-005; EERE-2019-BT-WAV-0010]**

**Energy Conservation Program: Petition for Waiver of Anker Innovations Limited from the Department of Energy External Power Supply Test Procedure and Grant of Interim Waiver**

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Notice of petition for waiver and grant of an interim waiver, and request for comments.

**SUMMARY:** This document announces receipt of and publishes a petition for waiver from Anker Innovations Limited (“Anker”), which seeks a waiver from the U.S. Department of Energy (“DOE”) test procedure used for determining the energy efficiency of a specified EPS basic model. Anker asserts that testing under the current DOE test procedure does not reflect actual use of EPSs that meet the USB Power Delivery Specification and seeks to use an alternate test procedure. DOE is granting to Anker an interim waiver from the DOE test procedure for the specified basic model, subject to use of the alternate test procedure as set forth in the Interim Waiver Order. DOE solicits comments, data, and information concerning Anker’s petition and its suggested alternate test procedure, as well as the alternate test procedure specified in the interim waiver, to inform its final decision on Anker’s waiver request.

**DATES:** Written comments and information are requested and will be accepted on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at <http://www.regulations.gov>. Alternatively, interested persons may submit comments, identified by case number “2019-005”, and Docket number “EERE-2019-BT-WAV-0010,” by any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *E-mail:* [Anker2019WAV0010@ee.doe.gov](mailto:Anker2019WAV0010@ee.doe.gov). Include Case No. 2019-005 in the subject line of the message.
- *Postal Mail:* Appliance and Equipment Standards Program, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, Mailstop EE-5B, Petition for Waiver Case No. 2019-005, 1000 Independence Avenue, SW., Washington, DC 20585-0121. If possible, please submit all items on a compact disc (“CD”), in which case it is not necessary to include printed copies.
- *Hand Delivery/Courier:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 950 L’Enfant Plaza, SW., 6<sup>th</sup> floor, Washington, DC, 20024. If possible, please submit all items on a “CD”, in which case it is not necessary to include printed copies.

No telefacsimilies (faxes) will be accepted. For detailed instructions on submitting comments and additional information on this process, see section V of this document.

*Docket:* The docket, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at <http://www.regulations.gov>. All documents in the docket are listed in the <http://www.regulations.gov> index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket web page can be found at <http://www.regulations.gov/docket?D=EERE-2019-BT-WAV-0010>. The docket web page contains simple instruction on how to access all documents, including public comments, in the docket. See section V for information on how to submit comments through <http://www.regulations.gov>.

#### **FOR FURTHER INFORMATION CONTACT:**

Ms. Lucy deButts, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC 20585-0121. E-mail: [AS\\_Waiver\\_Request@ee.doe.gov](mailto:AS_Waiver_Request@ee.doe.gov).

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-33, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585-0103. Telephone: 202-586-8145. E-mail: [Michael.Kido@hq.doe.gov](mailto:Michael.Kido@hq.doe.gov).

#### **SUPPLEMENTARY INFORMATION:**

## **I. Background and Authority**

The Energy Policy and Conservation Act of 1975, as amended (“EPCA”),<sup>1</sup> authorizes the U.S. Department of Energy (“DOE”) to regulate the energy efficiency of a number of consumer products and industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B<sup>2</sup> of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain types of consumer products. These products include EPSs, the focus of this document. (42 U.S.C. 6291(36); 42 U.S.C. 6295(u))

EPCA’s energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA for covered products include definitions (42 U.S.C. 6291), energy conservation standards (42 U.S.C. 6295), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2) making representations about the efficiency of that product (42 U.S.C. 6293(c)). Similarly, DOE

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<sup>1</sup> All references to EPCA in this document refer to the statute as amended through America’s Water Infrastructure Act of 2018, Public Law 115-270 (October 23, 2018).

<sup>2</sup> For editorial reasons, upon codification in the U.S. Code, Part B was redesignated as Part A.

must use these test procedures to determine whether the product complies with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE is required to follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section must be reasonably designed to produce test results which reflect the energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3)) The test procedure for EPSs is contained in the Code of Federal Regulations (“CFR”) at 10 CFR part 430, subpart B, appendix Z, *Uniform Test Method for Measuring the Energy Consumption of External Power Supplies* (“Appendix Z”).

Under 10 CFR 430.27, any interested person may submit a petition for waiver from DOE’s test procedure requirements. DOE will grant a waiver from the test procedure requirements if DOE determines either that the basic model for which the waiver was requested contains a design characteristic that prevents testing of the basic model according to the prescribed test procedures, or that the prescribed test procedures evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 430.27(f)(2). A petitioner must include in its petition any alternate test procedures known to the petitioner to evaluate the basic model in a manner representative of its energy consumption characteristics. 10 CFR 430.27(b)(1)(iii).

DOE may grant the waiver subject to conditions, including adherence to alternate test procedures. 10 CFR 430.27(f)(2). As soon as practicable after the granting of any waiver, DOE will publish in the *Federal Register* a notice of proposed rulemaking to amend its regulations so as to eliminate any need for the continuation of such waiver. 10 CFR 430.27(l). As soon thereafter as practicable, DOE will publish in the *Federal Register* a final rule. *Id.*

The waiver process also provides that DOE may grant an interim waiver if it appears likely that the underlying petition for waiver will be granted and/or if DOE determines that it would be desirable for public policy reasons to grant immediate relief pending a determination on the underlying petition for waiver. 10 CFR 430.27(e)(2). Within one year of issuance of an interim waiver, DOE will either: (i) publish in the *Federal Register* a determination on the petition for waiver; or (ii) publish in the *Federal Register* a new or amended test procedure that addresses the issues presented in the waiver. 10 CFR 430.27(h)(1).

When DOE amends the test procedure to address the issues presented in a waiver, the waiver will automatically terminate on the date on which use of that test procedure is required to demonstrate compliance. 10 CFR 430.27(h)(2).

## **II. Anker's Petition for Waiver and Petition for Interim Waiver**

On April 12, 2019, Anker filed a petition for waiver and a petition for interim waiver from the test procedure applicable to EPSs set forth at Appendix Z.<sup>3</sup> Anker stated that the

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<sup>3</sup> The specific basic model for which the petition applies is EPS basic model A2041. This basic model name was provided by Anker in its April 12, 2019 petition, which is available at: <http://www.regulations.gov/docket?D=EERE-2019-BT-WAV-0010>.

specified basic model includes adaptive ports that meets the provisions of the International Electrotechnical Commission's "Universal serial bus interfaces for data and power—Part 1-2: Common components—USB Power Delivery" ("IEC 62680-1-2:2017") specification. The IEC 62680-1-2:2017 specification describes the particular architecture, protocols, power supply behavior, connectors, and cabling necessary for managing power delivery over a universal serial bus ("USB") connection at power levels of up to 100 watts ("W"). The purpose behind this specification is to help provide a standardized approach for power supply and peripheral developers to ensure backward compatibility while retaining product design and marketing flexibility. See generally, IEC 62680-1-2:2017 (Abstract) (describing the standard's general provisions and purpose).

Anker states that the adaptive ports on the basic model identified in its petition meet the IEC 62680-1-2:2017 specification. Anker asserts that testing the adaptive ports that meet the IEC 62680-1-2:2017 specification at 15 watts at the lowest nameplate output voltage (*i.e.*, 5 volts, 3 amps) does not reflect actual use in the field, and that, at this voltage level, these ports do not exceed 10 watts for almost all usage. Accordingly, the petitioner argues that the current DOE test procedure results in a measurement that is grossly unrepresentative of the actual energy consumption characteristics of the EPS in the real world.

Under the current DOE test procedure, average active-mode efficiency for an adaptive EPS is measured by testing the units twice – once at the highest achievable output voltage ("V") and once at the lowest achievable output voltage. The test procedure requires that active-mode efficiency be measured at four loading conditions relative to the nameplate output current of the



EPS. See 10 CFR 430.23(bb) and Appendix Z. The lowest achievable output voltage supported by the USB Power Delivery Specification is 5V and the specified nameplate current at this voltage output is 3 amps (“A”), resulting in a power output of 15W. Anker contends that while the IEC 62680-1-2:2017 specification requires the tested EPS to support this power output, the 15W at 5V condition will be rarely used and only for brief periods of time, and that adaptive EPSs operating at 5V do not exceed 10W for almost all usage conditions.

Anker also requests an interim waiver from the existing DOE test procedure. DOE will grant an interim waiver if it appears likely that the petition for waiver will be granted, and/or if DOE determines that it would be desirable for public policy reasons to grant immediate relief pending a determination of the petition for waiver. See 10 CFR 430.27(e)(2). Based on the assertions in the petition, absent an interim waiver, the DOE test procedure would test the basic model of adaptive EPS listed in the petition in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. DOE notes that it has granted waivers in response to petitions that presented the same issue as in Anker’s petition.<sup>4</sup> Consequently, it appears likely that Anker’s petition for waiver will be granted. Furthermore, DOE has determined that it is desirable for public policy reasons to grant Anker immediate relief pending a determination of the petition for waiver.

### **III. Alternate Test Procedure**

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<sup>4</sup> See Notice of Decision and Order Granting Individual Waivers to Apple Inc., Microsoft Corporation, Poin2 Lab and Hefei Bitland Information Technology Co., From the Department of Energy External Power Supplies Test Procedure. 83 FR 11738 (March 16, 2018). See also, Notice of Decision and Order Granting Individual Waiver to Huawei Technologies, Co. Ltd. From the Department of Energy External Power Supplies Test Procedure and Grant of Interim Waiver. 83 FR 25448 (June 1, 2018).

As part of its waiver request, Anker seeks to use an alternate test procedure to test and rate a specific EPS basic model that features two USB-A non-adaptive ports, and two USB-C adaptive ports. In its suggested alternate test procedure, Anker recommends testing the EPS by loading both USB-A output ports at a combined power draw of 10 watts (“W”) (*i.e.*, 5 volts, 1 amp per USB-A port) for the 100% loading condition, and both USB-C output ports at a combined power draw of 90W (*i.e.*, 20 volts, 2.25 amps per USB-C port) for the 100% loading condition. The 75%, 50%, and 25% loading conditions would then be scaled accordingly (*i.e.*, 0.75 amps, 0.5 amps, 0.25 amps for each USB-A port at 5 volts, respectively; and 1.688 amps, 1.125 amps, 0.563 amps for each USB-C output port at 20 volts, respectively). Based on DOE’s reading of Anker’s suggested alternate test procedure, this approach would effectively require a given EPS to be tested only at the highest nameplate output voltage.

DOE has reviewed Anker’s suggested alternate test procedure and initially finds that the suggested test procedure would also evaluate the basic model in a manner unrepresentative of its true energy characteristics. While DOE recognizes that testing a port that meets the IEC 62680-1-2:2017 specification at 5V, 3A is unrepresentative of actual field use, the petitioner’s suggested method of testing an adaptive EPS only at the highest nameplate output voltage would also be unrepresentative of the tested device’s true energy consumption. Adaptive USB-C ports are able to operate at their stated higher nameplate output voltages only when used in conjunction with consumer products that are able to request the higher voltages from the EPS using established digital communication protocols as outlined in the IEC 62680-1-2:2017 specification. The output of these USB-C ports will revert to the lowest voltage (*i.e.* 5V) when used with devices that are incapable of such digital communication. In order for a measurement

to be representative of real-world usage, the applicable test procedure must include measurements covering both of these use cases. Anker's suggested alternate test procedure would fail to capture this product's real-world energy use, which Anker admits would include the 5V operating condition, albeit not at a current of 3 amps as specified under IEC 62680-12:2017.

In previously granted waivers, the alternative test procedures address issues of representativeness by testing ports that meet the IEC 62680-1-2:2017 specification at 10W (i.e. 5 volts, 2 amps) at the lowest nameplate output voltage for the 100% loading condition, rather than at 15W (i.e. 5 volts, 3 amps) as specified under the IEC testing standard. The 75%, 50%, and 25% loading conditions are then scaled accordingly. All other testing requirements, including testing at the highest nameplate output voltage, apply as prescribed in Appendix Z. This test method captures the efficiencies of such an EPS at both its highest and lowest nameplate output voltages while alleviating the problem of providing a representative measurement caused by testing adaptive ports at 15W at the lowest nameplate output voltage. Testing an adaptive EPS in this manner provides a more representative assessment of its real-world behavior where the device's output voltage depends on the functionality of the connected consumer product. Additionally, prescribing a single test method that applies to all EPSs meeting the IEC 62680-1-2:2017 specification ensures the comparability of test results.

Therefore, in place of the petitioner's suggested test method, DOE is requiring Anker to test the specified adaptive EPS at both the highest and lowest output voltage to better account for the adaptive nature of the EPS. Consistent with previous test procedure waivers for the specified

basic model,<sup>5</sup> the adaptive ports that meet the IEC 62680-1-2:2017 specification must be tested at an output power of 10W at the lowest nameplate output voltage, 5 volts, instead of 15W. The loading conditions at 75%, 50%, and 25% must be scaled accordingly (*i.e.*, 7.5W, 5W, 2.5W, respectively). For the highest nameplate output voltage, the specified EPS basic model must be tested according to the current EPS test procedure provisions for multiple-voltage EPSs as prescribed in section 4(b) of Appendix Z.

#### **IV. Summary of Grant of an Interim Waiver**

DOE has reviewed Anker's petition for an interim waiver, and the alternate test procedure requested by Anker. Upon this review and for the reasons discussed in the prior section, DOE has initially determined that the alternate test procedure as suggested by Anker would not evaluate the basic model in a manner representative of its true energy characteristics.

In contrast, the alternate test procedure specified by DOE appears to allow for the accurate measurement of the efficiency of this product, while alleviating the testing problems associated with Anker's implementation of EPS testing for the basic model specified in its petition. Consequently, it appears likely that Anker's petition for a waiver will be granted. Furthermore, DOE has determined that it is desirable for public policy reasons to grant Anker immediate relief pending a determination of the petition for waiver.

For the reasons stated, DOE has issued an **Order** stating:

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<sup>5</sup> See Notice of Decision and Order Granting Individual Waivers to Apple Inc., Microsoft Corporation, Poin2 Lab and Hefei Bitland Information Technology Co., From the Department of Energy External Power Supplies Test Procedure. 83 FR 11738 (March 16, 2018). See also, Notice of Decision and Order Granting Waiver to Huawei Technologies, Co. Ltd. 83 FR 25448 (June 1, 2018).

- (1) Anker must test and rate Anker-branded external power supply (“EPS”) basic model A2041 in accordance with the alternate test procedure set forth in paragraph (2).
- (2) The alternate test procedure for the Anker basic models referenced in paragraph (1) is the test procedure for EPS prescribed by DOE at 10 CFR part 430, Subpart B, Appendix Z, except that under section 4(a)(i)(E) and Table 1 of Appendix Z, when testing at the lowest achievable output voltage, ports that meet the IEC 62680-1-2:2017 specification must be tested such that the 100% nameplate loading condition shall be 2 amps (which corresponds to an output power of 10 watts). The 75%, 50%, and 25% loading conditions shall be scaled accordingly and the nameplate output power of such ports, at the lowest output voltage, shall be equal to 10 watts. All other requirements of Appendix Z and DOE’s regulations remain applicable.
- (3) *Representations.* Anker may not make representations about the energy efficiency of the basic models referenced in paragraph (1) for compliance, marketing, or other purposes unless the basic model has been tested in accordance with the provisions set forth in paragraph (2) and such representations fairly disclose the results of such testing.
- (4) This interim waiver shall remain in effect according to the provisions of 10 CFR 430.27.
- (5) This interim waiver is issued to Anker on the condition that the statements and representations provided by Anker are valid. DOE may rescind or modify this waiver at any time if it determines the factual basis underlying the petition for waiver is incorrect,

or the results from the alternate test procedure are unrepresentative of the basic models' true energy consumption characteristics. 10 CFR 430.27(k)(1). Likewise, Anker may request that DOE rescind or modify the interim waiver if Anker discovers an error in the information provided to DOE as part of its petition, determines that the interim waiver is no longer needed, or for other appropriate reasons. 10 CFR 430.27(k)(2).

- (6) Granting of this interim waiver does not release Anker from the certification requirements set forth at 10 CFR part 429.

DOE makes decisions on waivers and interim waivers for only those basic models specifically set out in the petition, not future models that may be manufactured by the petitioner. Anker may submit a new or amended petition for waiver and request for grant of interim waiver, as appropriate, for additional basic models of central air conditioners and heat pumps. Alternatively, if appropriate, Anker may request that DOE extend the scope of a waiver or an interim waiver to include additional basic models employing the same technology as the basic model(s) set forth in the original petition consistent with 10 CFR 430.27(g).

## **V. Request for Comments**

DOE is publishing Anker's petition for waiver in its entirety as originally submitted, pursuant to 10 CFR 430.27(b)(1)(iv). The petition includes a suggested alternate test procedure, as specified in section III of this document, to determine the efficiency of Anker's specified EPS. DOE may consider including this alternate procedure in a subsequent Decision and Order based on comments from interested parties. However, DOE is granting an interim waiver using an

alternate test procedure different than that suggested by the petitioner described in section IV of this document. DOE may consider including the alternate procedure specified in the Interim Waiver Order in a subsequent Decision and Order.

DOE invites all interested parties to submit in writing by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, comments and information on all aspects of the petition, including the alternate test procedure. Pursuant to 10 CFR 430.27(d), any person submitting written comments to DOE must also send a copy of such comments to the petitioner. The contact information for the petitioner is Eric Pan, Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong.

Submitting comments via <http://www.regulations.gov>. The <http://www.regulations.gov> web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached

to your comment. Persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to <http://www.regulations.gov> information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (“CBI”). Comments submitted through <http://www.regulations.gov> cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through <http://www.regulations.gov> before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that <http://www.regulations.gov> provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery, or mail. Comments and documents submitted via email, hand delivery, or mail also will be posted to <http://www.regulations.gov>. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.



Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via mail or hand delivery, please provide all items on a CD, if feasible. It is not necessary to submit printed copies. No facsimiles (faxes) will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

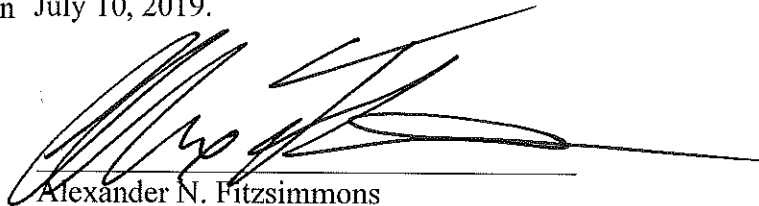
Confidential Business Information. According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery two well-marked copies: one copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email or on a CD, if feasible. DOE will make

its own determination about the confidential status of the information and treat it according to its determination.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include (1) a description of the items, (2) whether and why such items are customarily treated as confidential within the industry, (3) whether the information is generally known by or available from other sources, (4) whether the information has previously been made available to others without obligation concerning its confidentiality, (5) an explanation of the competitive injury to the submitting person which would result from public disclosure, (6) when such information might lose its confidential character due to the passage of time, and (7) why disclosure of the information would be contrary to the public interest.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

Signed in Washington, DC, on July 10, 2019.

A handwritten signature in black ink, appearing to read 'Alex N. Fitzsimmons', is written over a horizontal line.

Alexander N. Fitzsimmons  
Acting Deputy Assistant Secretary  
for Energy Efficiency  
Energy Efficiency and Renewable Energy

**PETITION OF ANKER INNOVATIONS LIMITED.FOR WAIVER AND  
APPLICATION FOR INTERIM WAIVER  
INTERIM WAIVER OF TEST PROCEDURE FOR EXTERNAL POWER SUPPLIES**

Anker Innovations Limited (Anker) respectfully submits this Petition for Waiver and Application for Interim Waiverl [sic] as related to the Department of Energy's (DOE) test procedure for external power supplies (EPS) that Part 430, Subpart B, Appendix Z

Anker is located at Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong [sic]. Telephone number: 0755-86544807

The EPS basic models listed in Appendix I hereto meet the criteria for a waiver[.] The current DOE test procedure evaluates the models in a manner that is that is [sic] grossly unrepresentative of their actual energy consumption characteristics in real-world usage. This situation has already been recognized by DOE, and it has indicated a willingness to review the situation. Anker urges that a waiver be granted that will provide for the alternate test procedure . [sic] discussed herein, under which lowest voltage average efficiency would be measured at 10 watts (W). This is far more representative of actual energy consumption characteristics of the product in real-world usage than the 15W required by the current DOE test procedure. DOE "will grant a waiver from the test procedure requirements" in these circumstances

**I. BASIC MODELS FOR WHICH AW AIVER IS REQUESTED.**

The basic models for which a waiver is requested are the adaptive EPS set forth in Appendix I hereto. They are manufactured by Anker Innovations are [sic] distributed in commerce under the Anker brand name.

**II. NEED FOR DIE [sic] REQUESTED WAIVER.**

Adaptive EPSs are highly beneficial products is [sic] to help provide a standardized approach for power supply and peripheral developers to ensure backward compatibility while retaining product design and marketing flexibility.

Under the current DOE test procedure, average active-mode efficiency for adaptive EPS is to be measured by testing the unit twice - once at the highest achievable output voltage and once at the lowest[.] Testing is to be across four load points (100%, 75%, 50%, and 25%) for each of the highest and lowest voltage levels. The average efficiency is deemed to be the arithmetic mean of the efficiency values calculated at the four load points. 8 [sic] The lowest achievable output voltage supported by the basic models is 5 volts (V). They are designed to provide a maximum power of 15W when this voltage is selected. 15W is an element of the USB Power Delivery Specification (standard IEC 62680-1-2:2017), which requires the product to support 15W at 5V. However, adaptive EPS do not exceed IOW for almost all usage. 15W at 5V will only be used in rare use scenarios and only for brief periods of time. Therefore, the DOE test procedure's evaluation at this power level is unrepresentative of the true energy consumption of the basic models in real-world usage.

### **III. PROPOSED ALTERNATE TEST PROCEDURE**

Anker proposed alternate test procedure, [ ] consistent with the approved alternate test procedure to evaluate the performance of the performance of the actual usage models. A2041 is a 100W intelligent charger, [ ] it contains four output ports , [sic] 2 USBC ports and 2 USB-A ports. So Anker think [sic] that the following combination can better evaluate the performance of the product.

This usage models [sic] combination [sic] as follow:

When the USB-A loading condition at [the] lowest achievable output voltage is 2A [ ] (The USB-A corresponds to output power of 10 Watts). At the same time with the USBC loading condition at the rest of 90 watts is 4.5A at highest output voltage [ ] (20V). The product total output power is 100 watts.

- Measure at 4 points: 100%, 75%, 50%, & 25% of 100W load points at the same time with USB-A and USBC loading condition.
- Take the average.
- Compare results against DOE efficiency requirement at 100 watts .

### **IV. REQUEST FOR INTERIM WAIVER.**

Anker requests an interim waiver for its testing and rating of the models in Appendix I. The petition for waiver is likely to be granted, as evidenced by its merits. Without waiver relief, Anker would be subject to requirements that clearly should not apply to such products. And without such relief, Sales [sic] of EPS will be inhibited, to the detriment of Anker and to users and distributors of adaptive EPS and the products that use EPS.

### **CONCLUSION.**

DOE should grant Anker the requested waiver and interim waiver for the models listed in Appendix I hereto.

Respectfully submitted,

Compliance Engineer: Eric Pan

/s/

### **APPENDIX I**

The waiver and interim waiver requested herein should apply to testing and rating of the following basic models: A2041 provided by Anker Innovations Limited.

### **APPENDIX II**

The following are manufacturers of all other basic models distributed in commerce in the United States and known to Anker to incorporate design characteristics similar to those found in the basic models that are the subject of the petition for waiver:

Apple, Inc

Chicony Power Technology  
Chrontel, Inc  
Dell  
HONOR ELECTRONIC CO. LTD  
Huntkey  
Ever Win International Corp.  
Griffin Technology LLC  
LG Electronics USA, Inc  
Lite on  
Lucent Trans Electronics Co., Ltd.  
Mobileconn Technology Co., Ltd.  
Phihong Technology Co., Ltd.  
Poin2 Lab.  
Renesas Electronics Corp.  
Salcomp Pie  
Samsung  
STMicroelectronics  
Superior Communications  
Texas Instruments  
Ventev Mobile  
Weltrend Semiconductor  
Xentris Wireless